

## **EXECUTIVE SUMMARY**

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The California State Lands Commission (CSLC) and the Monterey Bay National Marine Sanctuary (MBNMS) have prepared this draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Monterey Accelerated Research System (MARS) Cabled Observatory (the Project) proposed by the Monterey Bay Aquarium Research Institute (MBARI). The purpose of this EIR/EIS is to inform the public, permitting agencies, and other decision-makers about the potential environmental impacts of the proposed Project.

This EIR/EIS has been prepared in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 et seq.) and the National Environmental Policy Act (NEPA) and associated implementing regulations and guidelines.

### **PROJECT OBJECTIVES, PURPOSE AND NEED**

Under the NEPA Guidelines [40 Code of Federal Regulations (CFR) §1502.13, Purpose and Need and 40 CFR §1502.14, Alternatives], this document is required to identify the underlying purpose and need to which the lead agency is responding. The purpose of the Project is to install and operate, in State and Federal waters, an advanced cabled observatory in Monterey Bay that would provide a continuous monitoring presence in the MBNMS as well as serve as the test bed for a state-of-the-art regional ocean observatory, currently one component of the National Science Foundation (NSF) Ocean Observatories Initiative (OOI). The Project would provide real-time communication and continuous power to suites of scientific instruments enabling monitoring of biologically sensitive benthic sites and allowing scientific experiments to be performed. The Project would also serve as the engineering test bed for future cabled observatories, including the proposed North-East Pacific Time Series Undersea Networked Experiments (NEPTUNE) Project. The NEPTUNE system is a 1,864-mile (3,000-kilometer [km]) cable network that would be constructed off the Washington and Oregon coast.

Two general classes of research would take advantage of the Project. The first class consists of research projects directed at oceanographic features that are particularly well represented in Monterey Bay. Such features include the large and active submarine canyon, well-developed coastal upwelling and associated biological productivity, cold seeps and associated benthic faunas, and tectonic features associated with the eastern edge of the Pacific lithospheric plate. The second class consists of more generic research that could be carried out almost anywhere on topics such as benthic ecology, mixing processes in the interior of the ocean, and food web

1 dynamics in the midwater. The Project would allow researchers in such areas to  
2 develop the tools and methods to take advantage of the sea floor power supply and  
3 real-time data return and experiment control.

#### 4 **DESCRIPTION OF PROPOSED PROJECT**

5 The Project would consist of one science node located at the end of 31.7 miles (51 km)  
6 of submarine cable extending into Monterey Bay from the shore. The science node  
7 would contain eight science data ports, each capable of providing electrical power and a  
8 100-Mbit-per-second, bi-directional telemetry channel for data transfer. The node would  
9 have the ability to deliver a total of 10 kilowatts (kW) of power to the 8 ports. Extension  
10 cables could be plugged into any science port to provide power and communications up  
11 to 2.5 miles (4 km) away from the original node. Scientific and test equipment would be  
12 installed by the Applicant using the most cost-effective deployment vehicle, including  
13 the Applicant's remotely operated vehicles (ROVs) and ships of opportunity. In the  
14 initial years after deployment, the node would support a variety of scientific research  
15 equipment and be utilized to test technologies, ROV operations, and operational  
16 management systems that would eventually be used on NEPTUNE. The Project  
17 systems would make use of the tools, techniques, and products developed over the last  
18 several decades for high reliability submarine telecommunication and military systems  
19 to ensure that this system can operate over a 25-year lifetime with minimum life-cycle  
20 cost.

21 The proposed cable route would extend from Moss Landing on the shore of Monterey  
22 Bay to the northwest, north of the submarine Monterey Canyon, and along the  
23 continental margin to the southeastern part of the Smooth Ridge. The Project cable  
24 would terminate in a science node on the seabed of the Smooth Ridge at a depth of  
25 2,923 feet (891 m) (Figure ES-1). Obstructions avoided by the proposed route include  
26 buoys, rocks, and shoals where feasible; areas subject to underwater landslides or  
27 mass wasting events; and wrecks, dumping areas, and unexploded ordinance that  
28 would pose a risk to the submarine cable. The Project route was also selected to avoid  
29 or minimize potential impacts on important environmental resources and commercial  
30 fishing activities.

31 The Applicant has indicated the proposed cable route is the best route to achieve  
32 maximum burial (approximately 76 percent of the route). Further, the Applicant  
33 proposes to bury the cable to a maximum depth of 3.3 feet (1 m) to reduce potential  
34 risks to the cable from fishing and trawling activities and minimize potential impacts on  
35 marine resources.

- 1 **Placeholder for Figure ES-1. Proposed Cable Route and Science Node Location**
- 2 **(Use Figure 2.1-2 from Section 2. Project Description)**

1 The Applicant has contracted with Alcatel to lay the submarine cable. The Alcatel cable  
2 vessel *Ile de Ré* or an equivalent vessel would be utilized for the cable-laying operation.  
3 The *Ile de Ré* is a 469-foot (143-m), dynamically positioned ocean-going cable lay and  
4 repair vessel, which enables it to maintain position without the use of anchors. A  
5 hydraulically operated plow would be towed behind the *Ile de Ré*, which would cut a  
6 narrow trench for the cable and bury the cable. In areas where the cable cannot be  
7 buried with this method, the cable would be laid on the sea bottom and would be post-  
8 lay buried by jetting, where feasible. Some portions of the cable would remain unburied  
9 due to hard seafloor substrate and exposed rocks.

10 To bring the MARS cable to shore, a 5-inch (12.7-cm) diameter steel pipe would be  
11 installed underground that would extend out into Monterey Bay from the shore landing  
12 site at the mouth of Moss Landing Harbor. This new pipe would serve as conduit for the  
13 MARS cable. The pipe would extend from the shore landing site to a point on the  
14 seabed approximately 0.89 miles (1.4 km) to the northwest of the shore landing site.  
15 The pipe would be installed beneath the seabed by means of horizontal directional  
16 drilling (HDD).

17 Shore facilities would consist of equipment housed in a 20-foot (6-m)-long ISO van (a  
18 type of shipping container built to the standards of International Organization for  
19 Standardization) or similar structure that can be used by scientists as portable  
20 laboratory space. The van would be placed on MBARI property located on the west  
21 side of Sandholdt Road at the road's northern terminus in Moss Landing, Monterey  
22 County, California.

## 23 **ALTERNATIVES TO PROPOSED PROJECT**

24 The State CEQA Guidelines (40 CFR §15126.6.a) require that a reasonable range of  
25 alternatives to the proposed Project must be described and analyzed. Under the NEPA  
26 Guidelines (40 CFR §1502.14, Alternatives), the document is required to present the  
27 environmental impacts for the proposed Project and each alternative in comparative  
28 form, thus defining the issues and providing a clear choice among alternatives for  
29 decision-makers and the public (40 CFR §1502.14). Two alternative landing route  
30 alignments were chosen for detailed analysis in this EIR/EIS. These alternatives would  
31 meet the Project objectives and would place the science node in the area that provides  
32 a deep-water test bed required for testing and development of the NEPTUNE system  
33 components and access to areas of scientific interest. The two alternative landings  
34 would also have the potential to reduce or avoid some environmental impacts. The  
35 alternatives selected for evaluation are described below.

### **Alternative Landing Area 1: Duke Pipeline to MBARI Property**

This Alternative is similar to the proposed Project except that the shore landing would occur through an existing fuel oil pipeline owned by Duke Energy in addition to a HDD-installed conduit which would bring the cable to the landing site in Moss Landing. The pipeline was previously used to unload tankers and extends from shore for approximately 502 feet (153 m) in a west-northwest direction to a water depth of roughly 59 feet (18 m). The pipe is 18-24-inch (46-61-cm) carbon steel and has been well maintained by Duke Energy. The cable would run inside the pipeline from the ocean side entrance to a location on Jetty Road.

The cable would extend through the existing pipeline to a point where the pipeline becomes exposed on the eastern side of the jetty located on Jetty Road at Moss Landing State Beach. An access hatch would be constructed in the pipeline at this location to enable the cable to be pulled ashore from the cable vessel *Ile de Ré*.

A conduit would be installed by horizontal directional drilling (HDD) from this location, extending south under the entry channel to Moss Landing Harbor. The cable would continue from the Duke Energy pipeline through this new conduit to the landing site. Similar to the proposed Project, drilling operations, staging and equipment storage would occur on a vacant parcel located on the west side of Sandholdt Road at the road's northern terminus that is owned by the Applicant. As opposed to the proposed Project where the HDD would terminate offshore, the exit pit for the HDD under this alternative would be onshore. The Shore Facility would be the same as the proposed Project and consist of a 20-foot (6-m)-long ISO van, or similar structure, placed on a concrete slab located at the north end of Sandholdt Road.

### **Alternative Landing Area 2: Moss Landing Marine Laboratories (MLML) Pier**

Alternative Landing Area 2 would consist of the same undersea cable route and science node location as the proposed Project. The only difference in this alternative is that the shore landing would occur at the MLML located approximately 0.6 miles (1 km) south of the entrance to the Moss Landing Harbor. The cable would cross the head of the Monterey Canyon along the seafloor near the entrance to the Moss Landing Harbor and extend south to the MLML at a water depth of approximately 52.5 feet (16 m). Cable in this portion of the route would be placed in a reticulated metal conduit to provide some protection from seasonal fluctuations in nearshore sediment depths, but as the conduit would be placed along the seafloor, no HDD would be required. From a depth of approximately 52.5 feet (16 m), the cable would head inland to a different landing location than the proposed Project and Alternative Landing Area 1 and be landed at a pier that would be constructed by the MLML. From the pier, the cable would be placed

1 in a conduit and follow the same path as an existing intake pipe that supplies seawater  
2 to the MBARI Building C. The MLML is currently in the process of obtaining the  
3 necessary permits to construct the pier and the Applicant has obtained permission to  
4 land the cable at this location.

5 Alternative Landing Area 2 would utilize generally the same construction techniques  
6 identified in the proposed Project and Alternative Landing Area 1, except no HDD would  
7 be required under this alternative.

8 Building C located at the MBARI would serve as the Shore Facility, and no additional  
9 structures would be constructed.

## 10 **ENVIRONMENTAL IMPACTS AND MITIGATION**

11 The EIR/EIS identifies and analyzes the potentially significant environmental impacts  
12 associated with the installation, operation, and, to a lesser extent, the future removal of  
13 the proposed Project. The impact analysis is based on information provided by the  
14 Applicant in the initial applications and subsequent data requests, as well as  
15 supplementary investigations and research conducted by the EIR/EIS preparers.

16 The analysis indicates that the proposed Project would result in certain adverse  
17 environmental impacts; however, the majority of these impacts would not be significant.  
18 The potentially significant impacts identified in the analysis include effects on air quality,  
19 cultural resources, marine vessel transportation, and noise during installation of the  
20 MARS cable. All of the potentially significant impacts of the proposed Project can be  
21 reduced to a less than significant level with the implementation of mitigation measures.

22 Table ES-1 presents a summary of impacts and mitigation measures for the proposed  
23 Project. This table is presented by issue area. Within each issue area each impact is  
24 described and classified, and recommended mitigation is listed. All Class II significant  
25 adverse impacts that can be eliminated or reduced below an issue's significance criteria  
26 are presented first, followed by adverse impacts that do not meet or exceed an issue's  
27 significance criteria (Class III). Lastly, beneficial impacts (Class IV) are listed.

## 28 **COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES**

29 The State CEQA Guidelines [14 Code of California Regulations (CCR) §15126.6 (d)]  
30 require that an EIR include sufficient information about each alternative to allow  
31 meaningful evaluation, analysis, and comparison with the proposed Project. A matrix  
32 displaying the major characteristics and significant environmental effects of each  
33 alternative may be used to summarize the comparison. Table ES-2 provides a

comparison of the proposed Project with each of the landing area alternatives evaluated in this document, including the No Project/Action Alternative.

### ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The State CEQA Guidelines [14 CCR §15126.6 (e)(2)] state, in part, that “If the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative *among the other alternatives.*” (Emphasis added). The NEPA CEQ regulations (40 CFR §1505.2) also require the identification of the “environmentally preferable” alternative, but this is required only for the Record of Decision (ROD)

Overall, the impacts of the landing area of the proposed Project and the alternative landing areas (except the No Project/Action Alternative) are very similar. They differ primarily with regard to the HDD that is included in the proposed Project and Alternative Landing Area 1 and that is excluded from Alternative Landing Area 2. HDD has the potential to result in certain adverse, but less than significant impacts, including water quality impacts associated with erosion and accidental release of drilling mud. However, HDD as utilized in the proposed Project would avoid marine traffic delays at the entrance to Moss Landing Harbor and reduce the potential for vessel accidents.

The impacts on marine traffic due to the presence of the cable laying vessel and support vessels near the Moss Landing Harbor entrance under both Alternative Landing Areas 1 and 2 are considered significant (Class I). With the exception of Impacts GEO-4 and MAR-2 (see Table ES-1), in which Alternative Landing Area 2 has no impact, the remaining impacts are the same for each alternative. On the basis of this comparison, Alternative Landing Area 2 is the environmentally superior alternative.

### KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

The Applicant has been in discussions with local fishermen’s organizations in an attempt to put a Fisherman’s Agreement in place that would specify the terms, procedures, and rules for providing compensation to any fisherman whose gear is damaged or lost if snagged on the MARS cable or science node. At the time of publication of this Draft EIR/EIS, an acceptable Fisherman’s Agreement had not yet been negotiated between the Applicant and the fishermen’s organizations.

No other areas of controversy have emerged regarding the proposed Project to date.

1 **Table ES-1. Summary of Environmental Impacts for the Proposed Project**

- 2 Impact Class I = Significant adverse impact that remains significant after mitigation.<sup>1</sup>
- 3 II = Significant adverse impact that can be eliminated or reduced below an issue's significance criteria.
- 4 III = Adverse impact that does not meet or exceed an issue's significance criteria.
- 5 IV = Beneficial impact.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
<b>Section 4.1 – Air Quality</b>			
<b>AQ-1</b>	Vessels used for construction and decommissioning could temporarily exceed daily emission thresholds for ozone precursors and particulate matter within the MBUAPCD.	II	<b>MM AQ-1a.</b> Use low-emission fuel in all smaller diesel-powered vessels and in all construction equipment. <b>MM AQ-1b.</b> Contribute, as determined by the MBUAPCD, to an off-site emission reduction program within the MBUAPCD jurisdiction.
<b>AQ-2</b>	Use of vessels and power provided during operation could cause emissions of ozone precursors and particulate matter.	III	None required.
<b>Section 4.2 – Commercial and Recreational Fisheries</b>			
<b>CRF-1</b>	The presence of the cable installation vessel and equipment would preclude fishing within a limited area (~1 mile; ~1.6 km) for a temporary period (a few hours to several days).	III	None required.
<b>CRF-2</b>	Commercial fisheries that use equipment that contacts the bottom could potentially snag unburied portions of the cable, causing damage to or loss of their fishing gear, or damage to the cable.	III	None required.

<sup>1</sup> No Class I impacts were found for the proposed Project.



Impact No.	Impact	Impact Class	Recommended Mitigation Measures
<b>Section 4.3 – Cultural Resources</b>			
<b>CR-1</b>	The Project could disturb unknown prehistoric resources that may lie along the sea route between the +24.5-mile (39.4-km) and +29.0-mile (46.7-km) marks.	II	<b>MM CR-1.</b> Review existing sub-bottom profiler data and avoid any potential archeologically sensitive areas.
<b>Section 4.4 – Geology and Soils</b>			
<b>GEO-1</b>	Potential for marine landslides and slumping triggered by cable installation.	III	None required.
<b>GEO-2</b>	Cable repairs along the sea route would result in no more alteration of bottom topography or trigger submarine slope failures than installation activities.	III	None required.
<b>GEO-3</b>	Subsea cable installation would not result in substantial alteration of topography.	III	None required.
<b>GEO-4</b>	Poorly consolidated nearshore sediments could result in HDD frac-outs.	III	None required.
<b>GEO-5</b>	Potential exposure and/or damage of the nearshore conduit and cable, by either tidal scour or landward transgression of Monterey Canyon, would not adversely affect the geologic environment.	III	None required.
<b>GEO-6</b>	Conduit or cable repairs at the landing area would result in no more alteration of bottom topography or trigger slope failures than installation activities.	III	None required.
<b>GEO-7</b>	The Project could result in very limited exposure of additional people to increased risk of harm from seismic events.	III	None required.
<b>GEO-8</b>	Cable removal would result in similar or less impacts than those described for cable installation.	III	None required.
<b>Section 4.5 – Marine and Near-Coastal Biological Resources</b>			
<b>MBR-1</b>	During the pre-lay grapnel run, cable installation, post-lay burial, and decommissioning the substrate and fragile organisms could be dislodged or crushed.	III	None required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
<b>MBR-2</b>	A marine mammal could become entangled in the cable or other lines during cable laying installations.	III	None required.
<b>MBR-3</b>	A marine mammal could be killed or injured by collision with the cable lay vessel or a support vessel.	III	None required.
<b>MBR-4</b>	Marine mammals may be disturbed by the noise and activity of the cable laying operations.	III	None required.
<b>MBR-5</b>	An accidental release of fuel to the marine environment could harm marine mammals.	III	None required.
<b>MBR-6</b>	Marine mammals could become entangled in the cable during repair operations.	III	None required.
<b>MBR-7</b>	Seabirds in the vicinity of the cable laying or repair operations may experience some disturbance by the vessels and activities.	III	None required.
<b>MBR-8</b>	An accidental release of fuel to the marine environment could harm seabirds and shorebirds.	III	None required.
<b>MBR-9</b>	Marine mammals and seabirds listed as endangered or threatened could be entangled in the cable, harmed by the cable lay vessel or support vessel, or otherwise disturbed by cable lay operations.	III	None required.
<b>MBR-10</b>	Substrate and fragile organisms in nearshore areas could be damaged by the pre-lay grapnel run, cable installation, post-lay burial, or HDD.	III	None required.
<b>MBR-11</b>	An accidental release of drilling mud could degrade foraging habit for shorebirds and sea otters, and haul-out areas for harbor seals.	III	None required.
<b>MBR-12</b>	An accidental release of drilling mud could degrade foraging areas for sea otters and western snowy plovers.	III	None required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
<b>Section 4.6 – Marine Water and Sediment Quality and Oceanography</b>			
<b>MAR-1</b>	Cable installation, removal, and repair operations would resuspend bottom sediments near the cable route.	III	None required.
<b>MAR-2</b>	HDD operations would degrade nearshore water and sediment quality.	III	None required.
<b>MAR-3</b>	Fuel or hydraulic fluid spills from cable installation vessels would degrade water quality.	III	None required.
<b>Section 4.7 – Marine Vessel Transportation</b>			
<b>MVT-1</b>	Vessels used during cable installation could increase the potential for vessel accidents in Monterey Bay.	III	None required.
<b>MVT-2</b>	Vessels used during Project operation could increase the potential for vessel accidents in Monterey Bay.	III	None required.
<b>MVT-3</b>	Vessels used during cable removal could increase the potential for vessel accidents in Monterey Bay.	III	None required.
<b>MVT-4 Cumulative</b>	Potential cumulatively increased risk of marine vessel conflict during construction.	II	<b>MVT-4.</b> Schedule proposed Project construction so as to avoid the presence of a cable lay vessel within 1.15 miles (1 nm) of vessels performing borehole construction.
<b>Section 4.8 – Noise</b>			
<b>NOI-1</b>	Construction and decommissioning equipment could cause noise levels exceeding the 85 dBA limit of the Monterey County Noise Control Ordinance.	II	<b>MM NOI-1a.</b> Muffle, shield, or enclose the HDD activity.
<b>NOI-2</b>	Use of vessels and scientific equipment and instrumentation during operation could create noise.	III	None required.
<b>Section 4.9 – Environmental Justice</b>			
<b>EJ-1</b>	Construction and operation of the proposed Project would not result in disproportionate impacts on minority and/or low-income populations.	No Impact	None required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
EJ-2	Construction and operation of the proposed Project would not result in a disproportionate decrease in employment and/or economic base of minority and/or low-income populations.	No Impact	None required.

1 **Table ES-2. Summary of Environmental Impacts for the Proposed Project and Alternatives**

- 2 Impact Class I = Significant adverse impact that remains significant after mitigation.<sup>2</sup>
- 3 II = Significant adverse impact that can be eliminated or reduced below an issue's significance criteria.
- 4 III = Adverse impact that does not meet or exceed an issue's significance criteria.
- 5 IV = Beneficial impact.

Impact No.	Impact Description	Proposed Project	No Project	Alt. Landing Area 1	Alt. Landing Area 2
<b>Section 4.1 – Air Quality</b>					
<b>AQ-1</b>	Vessels used for construction and decommissioning could temporarily exceed daily emission thresholds for ozone precursors and particulate matter within the MBUAPCD.	II	No Impact	II	II
<b>AQ-2</b>	Use of vessels and power provided during operation could cause emissions of ozone precursors and particulate matter.	III	No Impact	III	III
<b>Section 4.2 – Commercial and Recreational Fisheries</b>					
<b>CRF-1</b>	The presence of the cable installation vessel and equipment would preclude fishing within a limited area (~1 mile; ~1.6 km) for a temporary period (a few hours to several days).	III	No Impact	III	III
<b>CRF-2</b>	Commercial fisheries that use equipment that contacts the bottom could potentially snag unburied portions of the cable, causing damage to or loss of their fishing gear, or damage to the cable.	III	No Impact	III	III
<b>Section 4.3 – Cultural Resources</b>					
<b>CR-1</b>	The Project could disturb unknown prehistoric resources that may lie along the sea route between the +24.5-mile (39.4-km) and +29.0-mile (46.7-km) marks.	II	No Impact	II	II
<b>Section 4.4 – Geology and Soils</b>					
<b>GEO-1</b>	Potential for marine landslides and slumping triggered by cable installation.	III	No Impact	III	III

<sup>2</sup> No Class I impacts were found for the proposed Project.

Impact No.	Impact Description	Proposed Project	No Project	Alt. Landing Area 1	Alt. Landing Area 2
<b>GEO-2</b>	Cable repairs along the sea route would result in no more alteration of bottom topography or trigger submarine slope failures than installation activities.	III	No Impact	III	III
<b>GEO-3</b>	Subsea cable installation would not result in substantial alteration of topography.	III	No Impact	III	III
<b>GEO-4</b>	Poorly consolidated nearshore sediments could result in HDD frac-outs.	III	No Impact	III	No Impact
<b>GEO-5</b>	Potential exposure and/or damage of the nearshore conduit and cable, by either tidal scour or landward transgression of Monterey Canyon, would not adversely affect the geologic environment.	III	No Impact	III	III
<b>GEO-6</b>	Conduit or cable repairs at the landing area would result in no more alteration of bottom topography or trigger slope failures than installation activities.	III	No Impact	III	III
<b>GEO-7</b>	The Project could result in very limited exposure of additional people to increased risk of harm from seismic events.	III	No Impact	III	III
<b>GEO-8</b>	Cable removal would result in similar or less impacts than those described for cable installation.	III	No Impact	III	III
<b>Section 4.5 – Marine and Near-Coastal Biological Resources</b>					
<b>MBR-1</b>	During the pre-lay grapnel run, cable installation, post-lay burial, and decommissioning the substrate and fragile organisms could be dislodged or crushed.	III	No Impact	III	III
<b>MBR-2</b>	It is possible that a marine mammal could become entangled in the cable or other lines, such as the plow tow rope, during cable laying installations.	III	No Impact	III	III
<b>MBR-3</b>	A marine mammal could be killed or injured by collision with the cable lay vessel or a support vessel.	III	No Impact	III	III
<b>MBR-4</b>	Marine mammals may be disturbed by the noise and activity of the cable laying operations.	III	No Impact	III	III
<b>MBR-5</b>	An accidental release of fuel to the marine environment could harm marine mammals.	III	No Impact	III	III

Impact No.	Impact Description	Proposed Project	No Project	Alt. Landing Area 1	Alt. Landing Area 2
<b>MBR-6</b>	Marine mammals could become entangled in the cable during repair operations.	III	No Impact	III	III
<b>MBR-7</b>	Seabirds in the vicinity of the cable laying or repair operations may experience some disturbance by the vessels and activities.	III	No Impact	III	III
<b>MBR-8</b>	An accidental release of fuel to the marine environment could harm seabirds and shorebirds.	III	No Impact	III	III
<b>MBR-9</b>	Marine mammals and seabirds listed as endangered or threatened could be entangled in the cable, harmed by the cable lay vessel or support vessel, or otherwise disturbed by cable lay operations.	III	No Impact	III	III
<b>MBR-10</b>	Substrate and fragile organisms in nearshore areas could be damaged by the pre-lay grapnel run, cable installation, post-lay burial, or HDD.	III	No Impact	III	III
<b>MBR-11</b>	An accidental release of drilling mud could degrade foraging habit for shorebirds and sea otters, and haul-out areas for harbor seals.	III	No Impact	III	III
<b>MBR-12</b>	An accidental release of drilling mud could degrade foraging areas for sea otters and western snowy plovers.	III	No Impact	III	III
<b>Section 4.6 – Marine Water and Sediment Quality and Oceanography</b>					
<b>MAR-1</b>	Cable installation, removal, and repair operations would resuspend bottom sediments near the cable route.	III	No Impact	III	III
<b>MAR-2</b>	HDD operations would degrade nearshore water and sediment quality.	III	No Impact	III	No Impact
<b>MAR-3</b>	Fuel or hydraulic fluid spills from cable installation vessels would degrade water quality.	III	No Impact	III	III
<b>Section 4.7 – Marine Vessel Transportation</b>					
<b>MVT-1</b>	Vessels used during cable installation and decommissioning could increase the potential for vessel accidents in Monterey Bay.	III	No Impact	II	II
<b>MVT-2</b>	Vessels used during Project operation could increase the potential for vessel accidents in Monterey Bay.	III	No Impact	III	III

Impact No.	Impact Description	Proposed Project	No Project	Alt. Landing Area 1	Alt. Landing Area 2
<b>MVT-3</b>	Vessels used during cable removal could increase the potential for vessel accidents in Monterey Bay.	III	No Impact	III	III
<b>MVT-4</b> Cumulative	Potential cumulatively increased risk of marine vessel conflict during construction.	II	No Impact	II	II
<b>MVT-5</b>	The presence of vessels used during construction and decommissioning could block access to Moss Landing Harbor and cause substantial delays to other vessels.	No Impact	No Impact	I	I
<b>MVT-6</b>	The presence of vessels used during construction and decommissioning would substantially increase the potential for vessel accidents in Monterey Bay.	No Impact	No Impact	II	II
<b>Section 4.8 – Noise</b>					
<b>NOI-1</b>	Construction equipment could cause noise levels exceeding the 85 dBA limit of the Monterey County Noise Control Ordinance.	II	No Impact	II	II
<b>NOI-2</b>	Use of vessels and scientific equipment and instrumentation during operation could create noise.	III	No Impact	III	III
<b>Section 4.9 – Environmental Justice</b>					
<b>EJ-1</b>	Construction and operation of the proposed Project would not result in disproportionate impacts on minority and/or low-income populations.	No Impact	No Impact	No Impact	No Impact
<b>EJ-2</b>	Construction and operation of the proposed Project would not result in a disproportionate decrease in employment and/or economic base of minority and/or low-income populations.	No Impact	No Impact	No Impact	No Impact